

FIG. 1
Prior Art

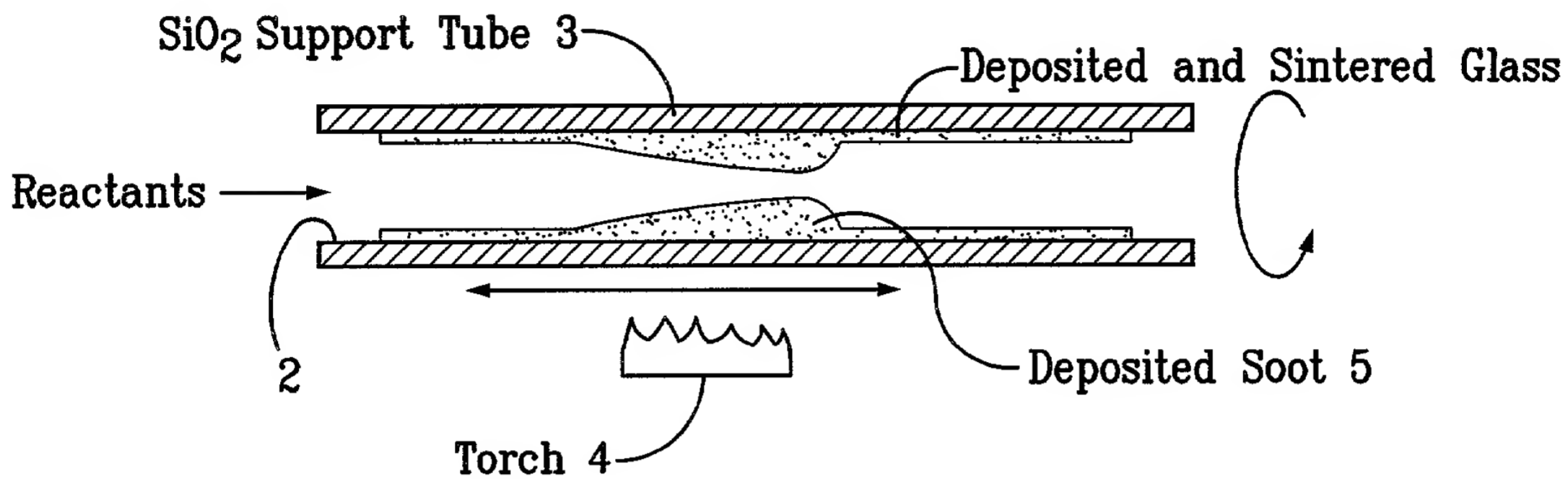


FIG. 2
Prior Art

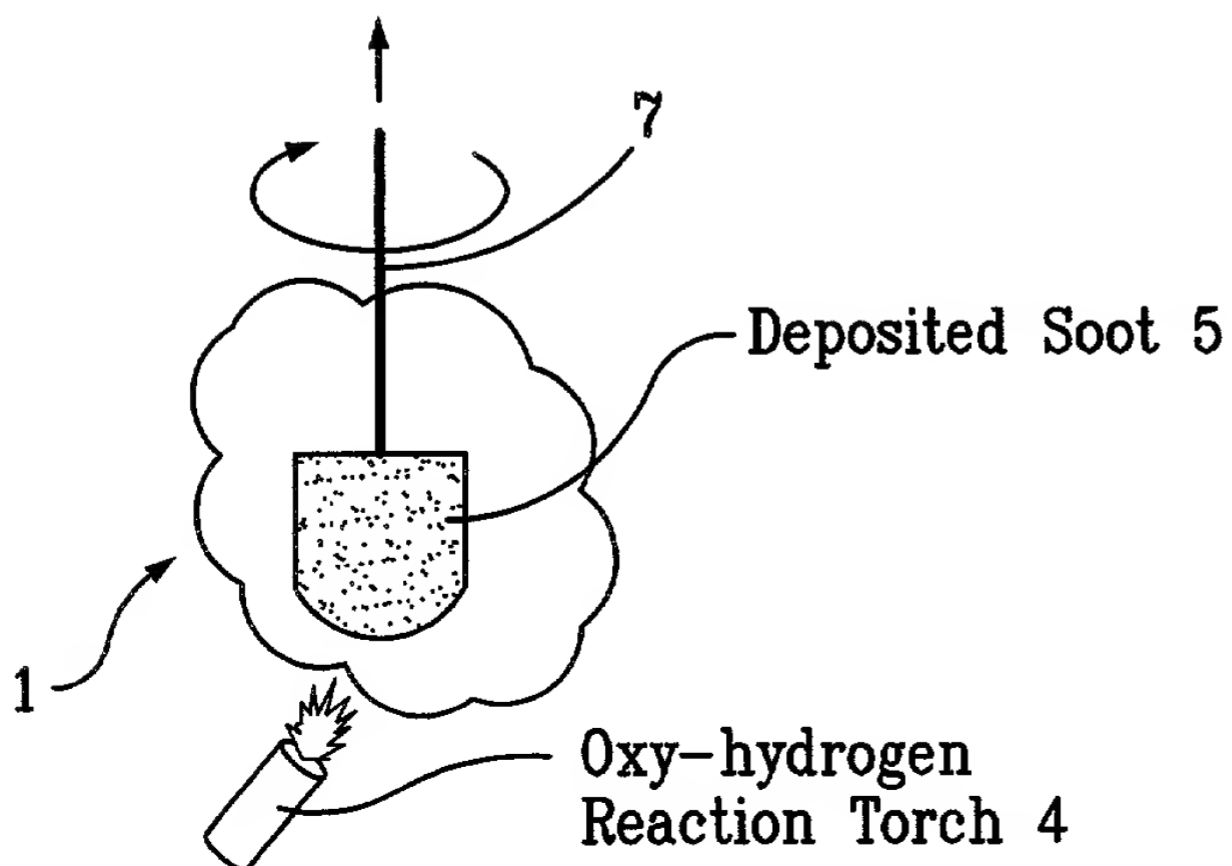
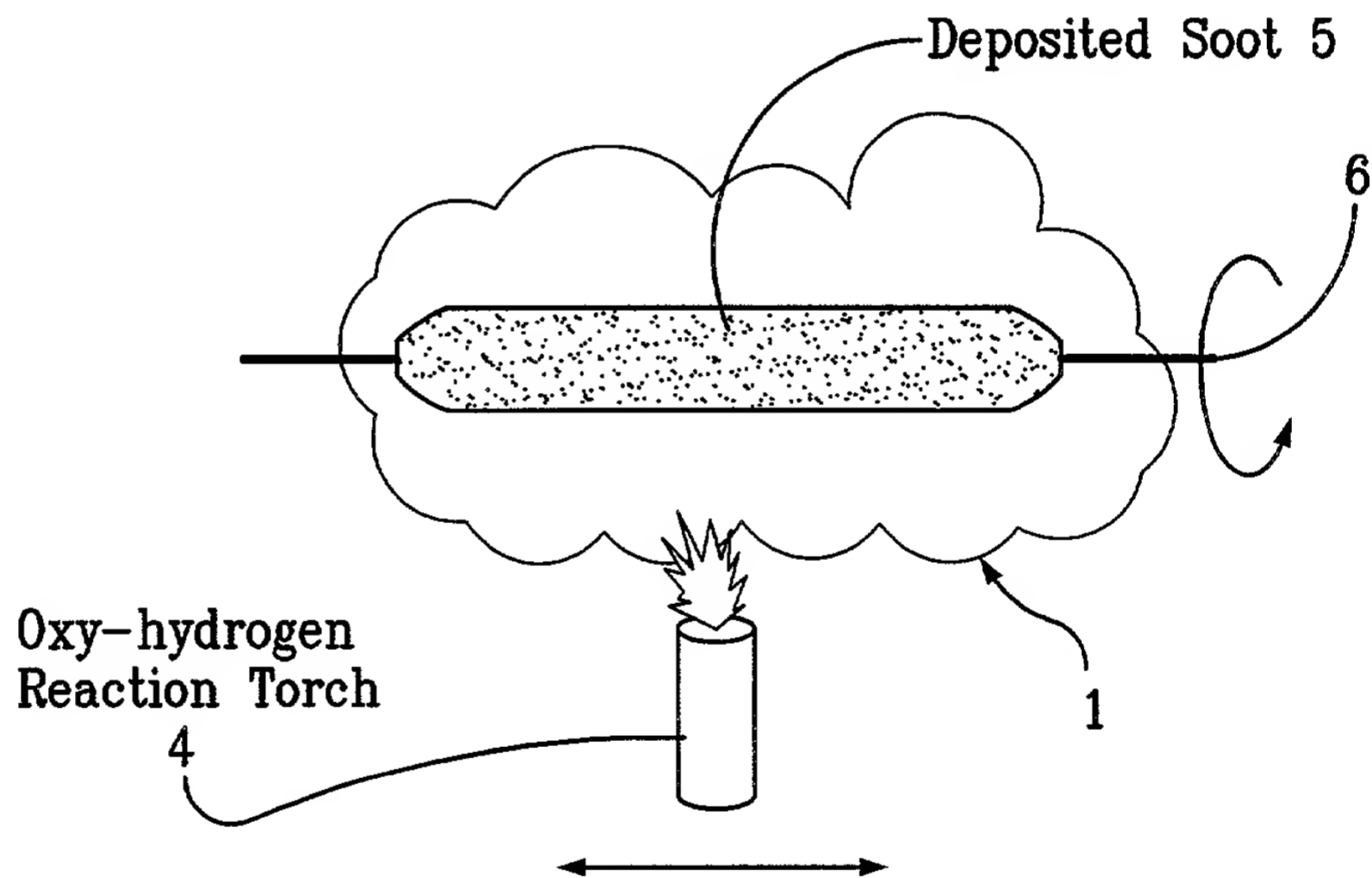


FIG. 3
Prior Art

FIG. 4

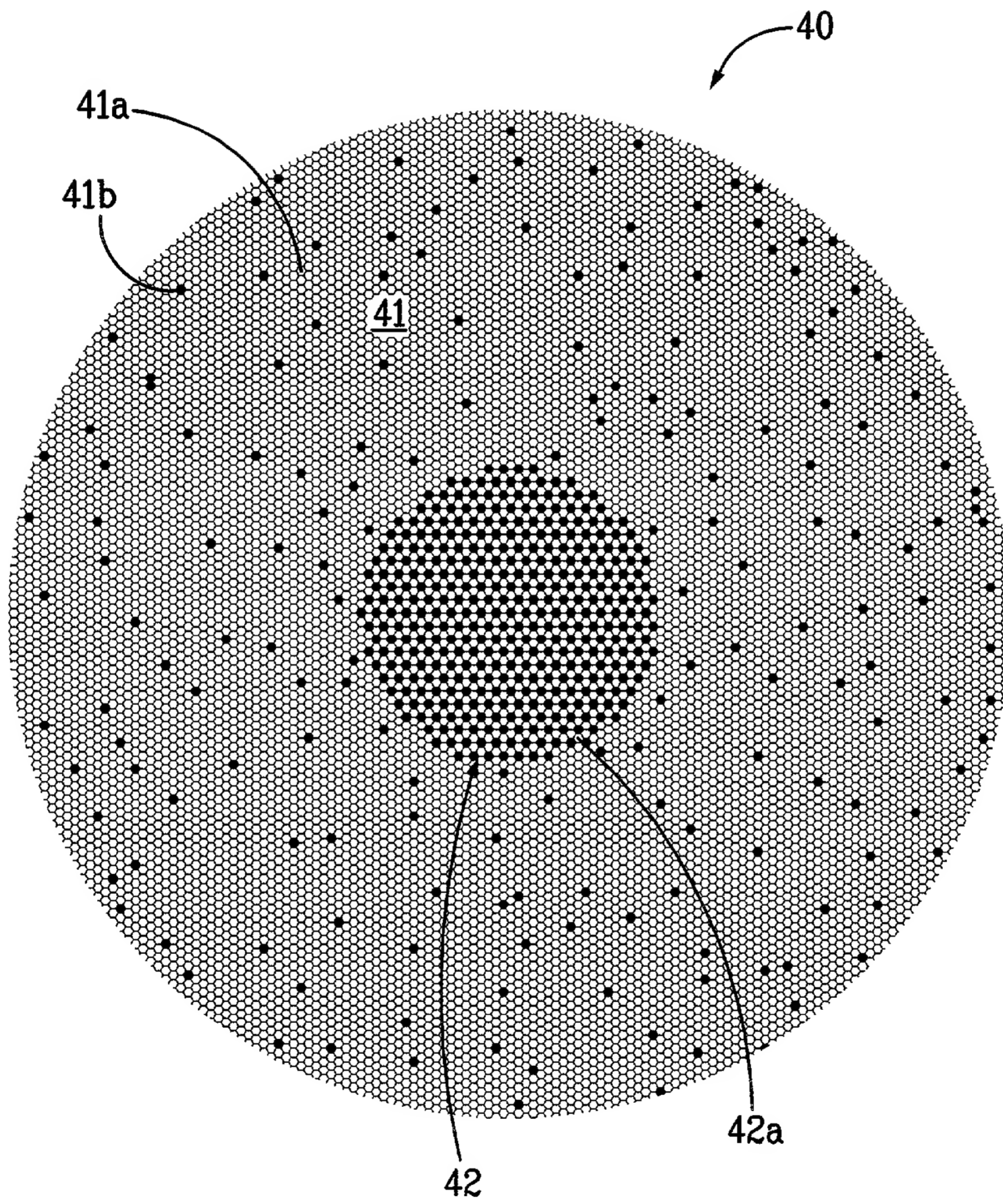
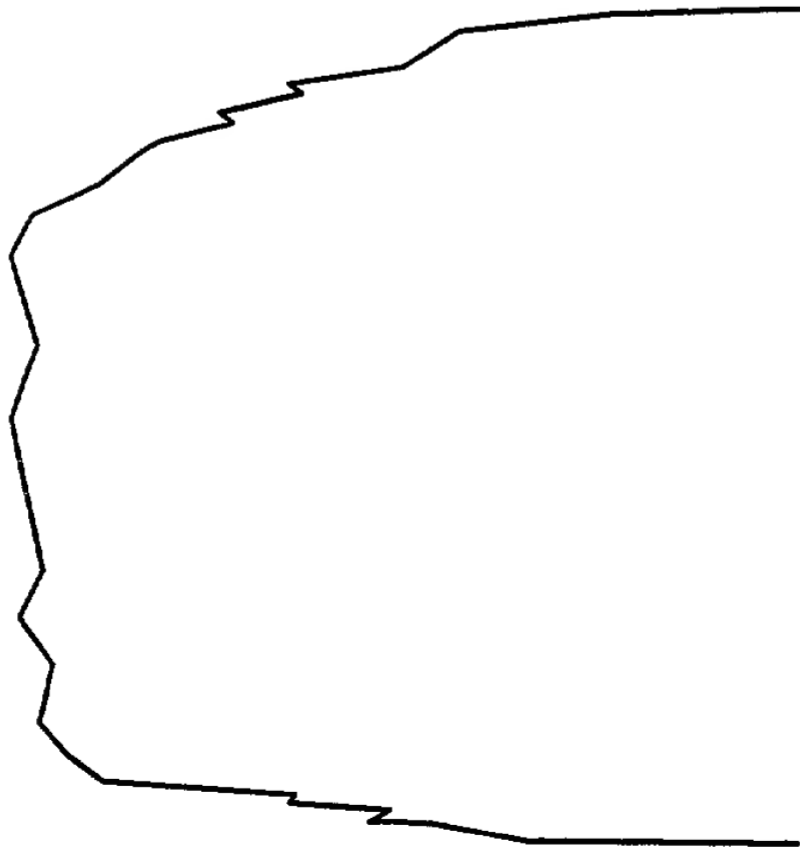


FIG. 4

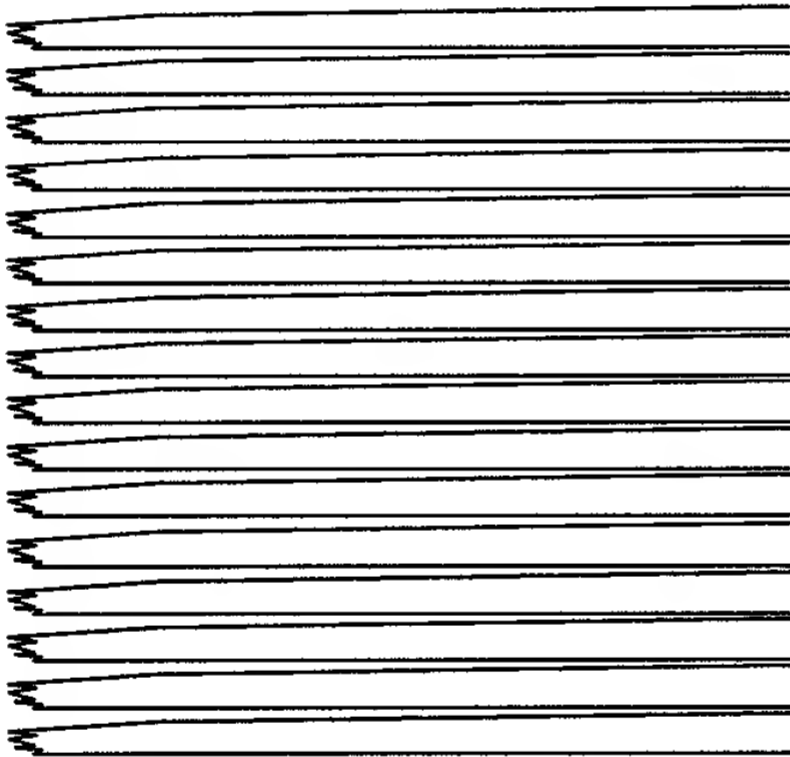


distance, arbitrary units



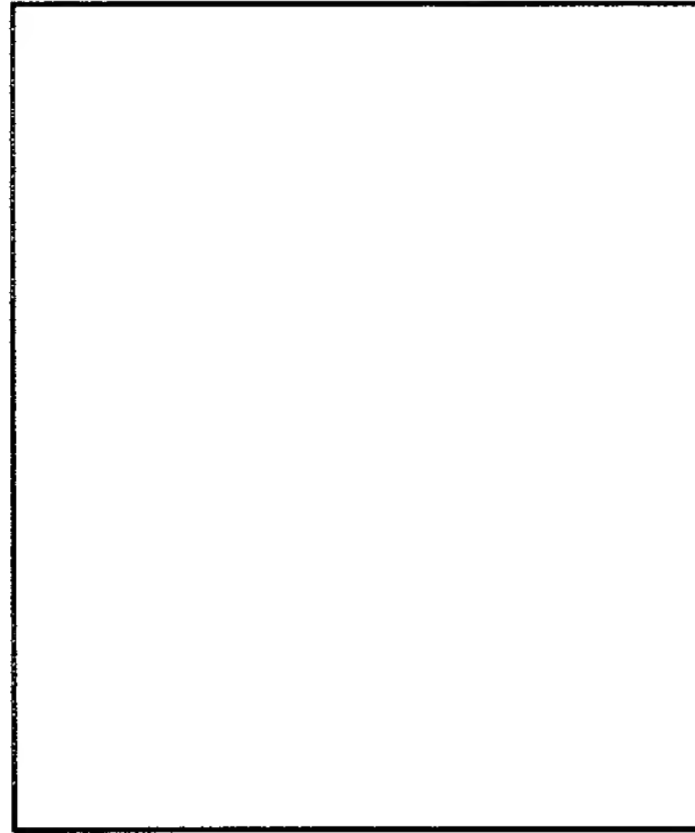
Index (or dopant) of core or cladding that has suffered the effects of burnout.

FIG. 6A



Index (or dopant) profile of a group of such rods bundled together.

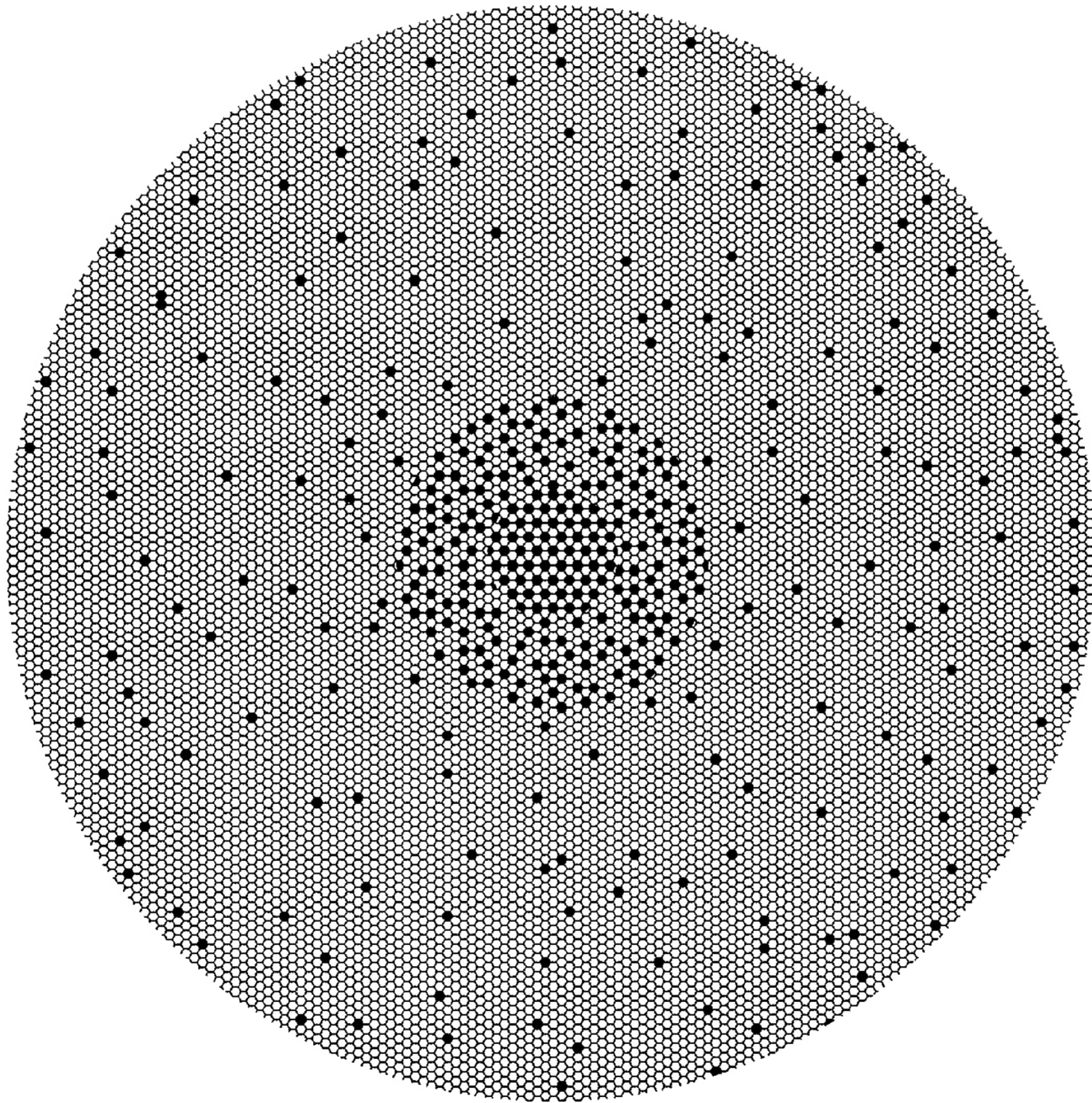
FIG. 6B



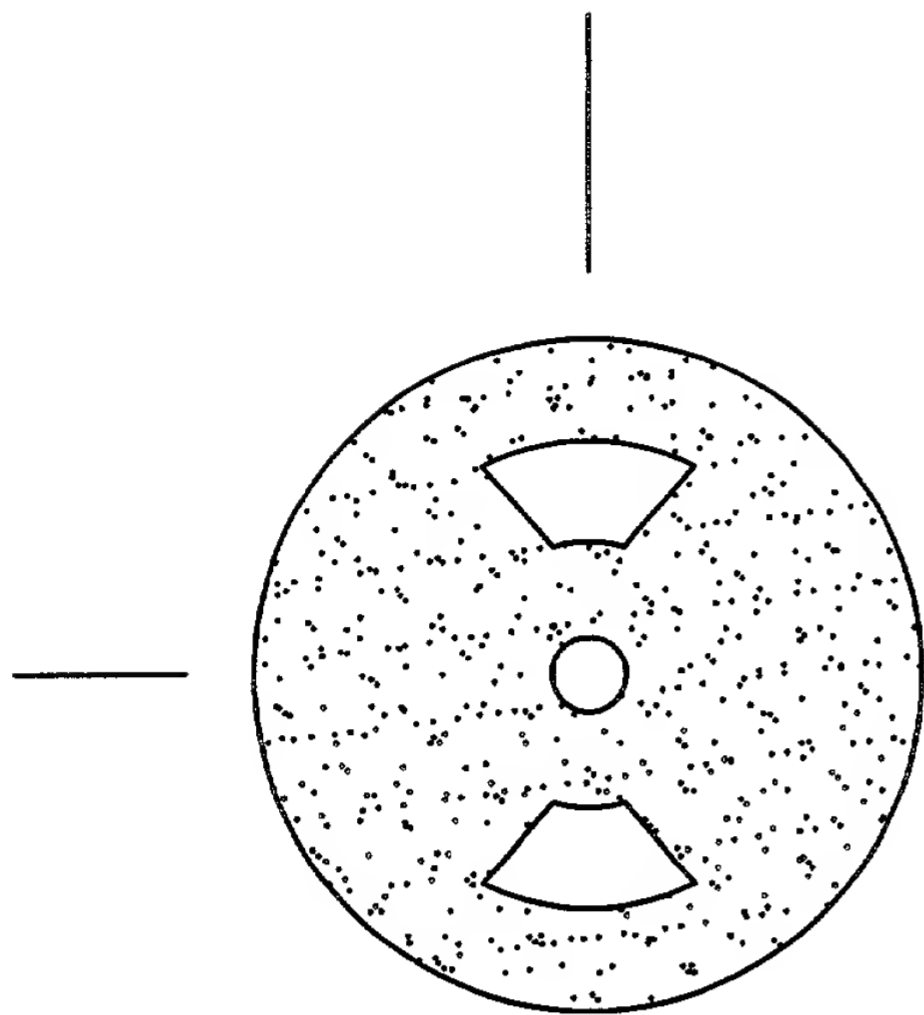
Effective index (or dopant) profile seen by mode field in fiber fabricated from such a preform bundle.

FIG. 6C

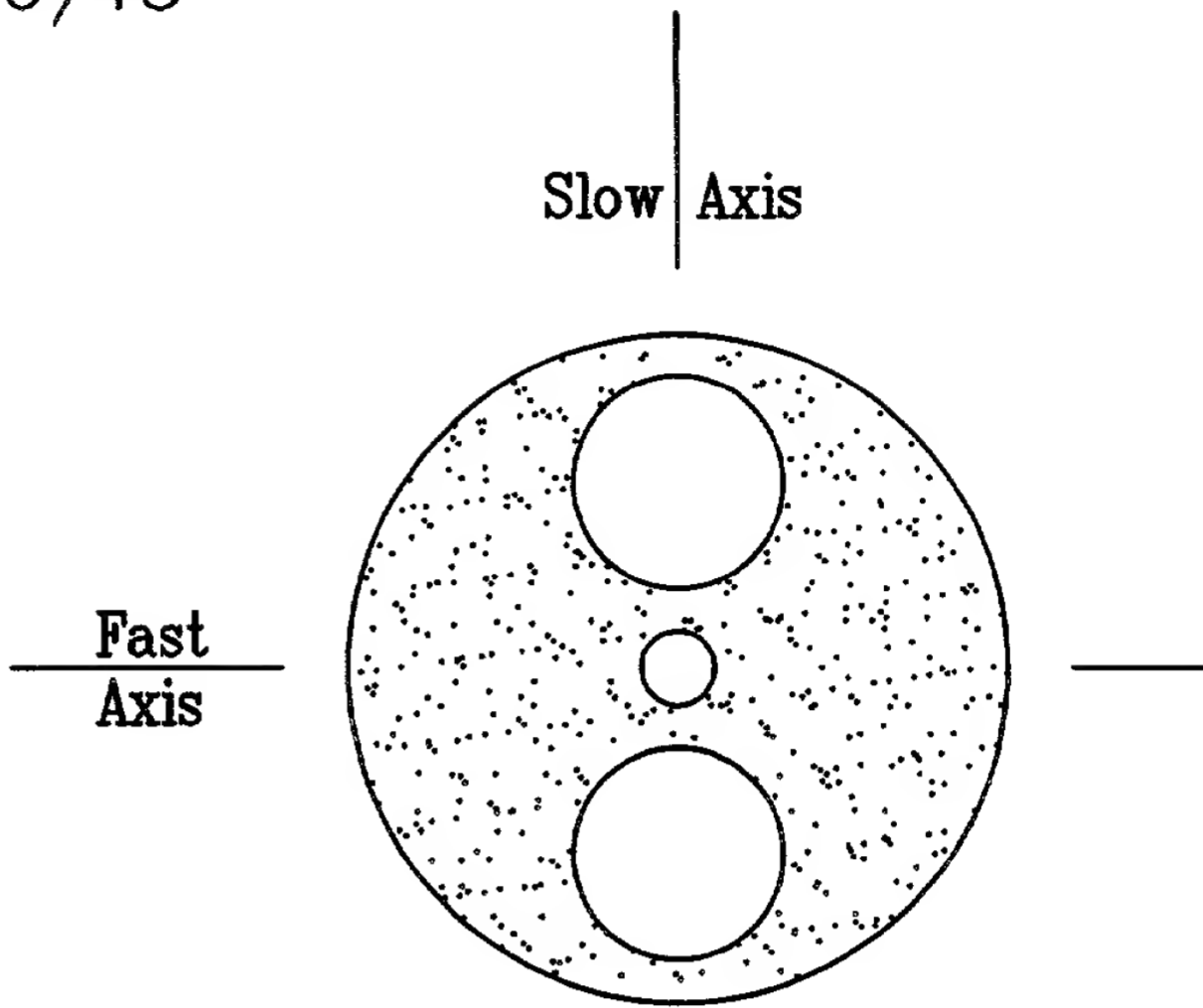
L



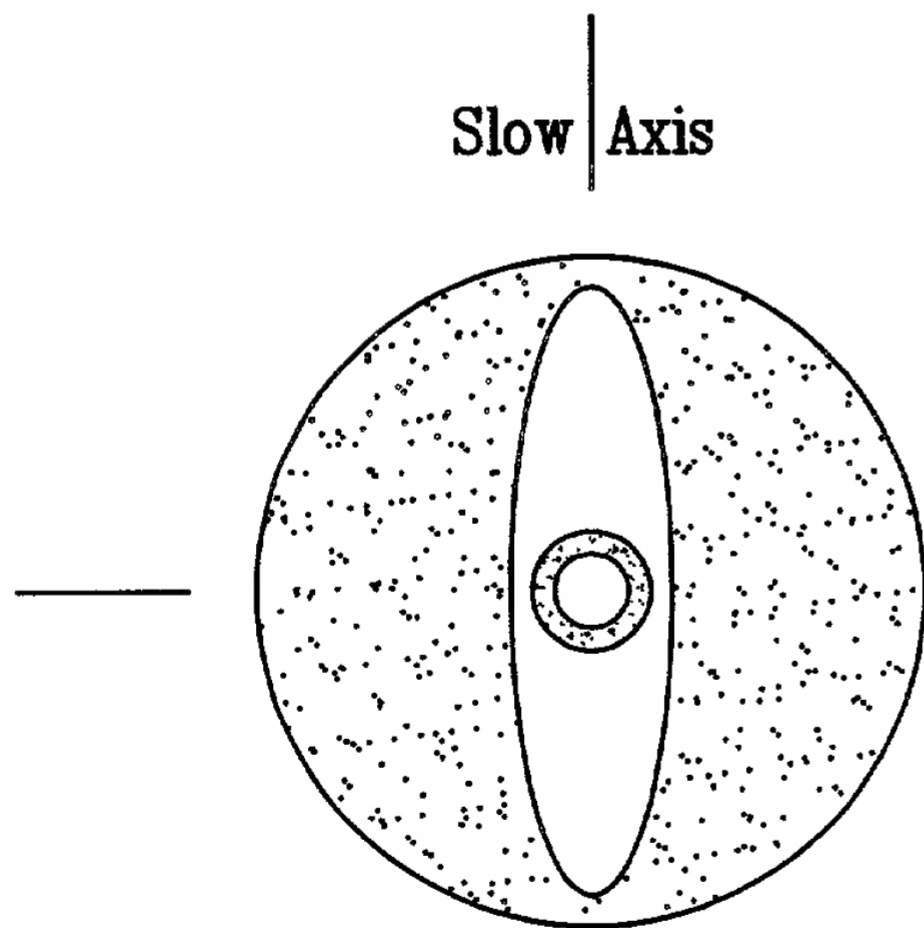
| | | |
|-----|-------------------|--------------|
| 1 | to | beginning of |
| 2 | from | beginning of |
| 3 | at | beginning of |
| 4 | on | beginning of |
| 5 | in | beginning of |
| 6 | by | beginning of |
| 7 | with | beginning of |
| 8 | without | beginning of |
| 9 | against | beginning of |
| 10 | for | beginning of |
| 11 | of | beginning of |
| 12 | and | beginning of |
| 13 | or | beginning of |
| 14 | but | beginning of |
| 15 | if | beginning of |
| 16 | when | beginning of |
| 17 | where | beginning of |
| 18 | how | beginning of |
| 19 | why | beginning of |
| 20 | what | beginning of |
| 21 | who | beginning of |
| 22 | which | beginning of |
| 23 | that | beginning of |
| 24 | this | beginning of |
| 25 | the | beginning of |
| 26 | an | beginning of |
| 27 | a | beginning of |
| 28 | some | beginning of |
| 29 | any | beginning of |
| 30 | all | beginning of |
| 31 | each | beginning of |
| 32 | every | beginning of |
| 33 | both | beginning of |
| 34 | neither | beginning of |
| 35 | either | beginning of |
| 36 | nor | beginning of |
| 37 | so | beginning of |
| 38 | such | beginning of |
| 39 | as | beginning of |
| 40 | like | beginning of |
| 41 | unlike | beginning of |
| 42 | opposite | beginning of |
| 43 | similar | beginning of |
| 44 | different | beginning of |
| 45 | same | beginning of |
| 46 | new | beginning of |
| 47 | old | beginning of |
| 48 | young | beginning of |
| 49 | middle-aged | beginning of |
| 50 | elderly | beginning of |
| 51 | adult | beginning of |
| 52 | child | beginning of |
| 53 | man | beginning of |
| 54 | woman | beginning of |
| 55 | boy | beginning of |
| 56 | girl | beginning of |
| 57 | father | beginning of |
| 58 | mother | beginning of |
| 59 | brother | beginning of |
| 60 | sister | beginning of |
| 61 | uncle | beginning of |
| 62 | aunt | beginning of |
| 63 | nephew | beginning of |
| 64 | niece | beginning of |
| 65 | cousin | beginning of |
| 66 | friend | beginning of |
| 67 | enemy | beginning of |
| 68 | neighbor | beginning of |
| 69 | stranger | beginning of |
| 70 | acquaintance | beginning of |
| 71 | relative | beginning of |
| 72 | partner | beginning of |
| 73 | spouse | beginning of |
| 74 | husband | beginning of |
| 75 | wife | beginning of |
| 76 | son-in-law | beginning of |
| 77 | daughter-in-law | beginning of |
| 78 | grandfather | beginning of |
| 79 | grandmother | beginning of |
| 80 | great-grandfather | beginning of |
| 81 | great-grandmother | beginning of |
| 82 | ancestor | beginning of |
| 83 | descendant | beginning of |
| 84 | heir | beginning of |
| 85 | successor | beginning of |
| 86 | predecessor | beginning of |
| 87 | succession | beginning of |
| 88 | inheritance | beginning of |
| 89 | legacy | beginning of |
| 90 | will | beginning of |
| 91 | trust | beginning of |
| 92 | estate | beginning of |
| 93 | property | beginning of |
| 94 | asset | beginning of |
| 95 | debt | beginning of |
| 96 | loan | beginning of |
| 97 | credit | beginning of |
| 98 | interest | beginning of |
| 99 | principal | beginning of |
| 100 | collateral | beginning of |



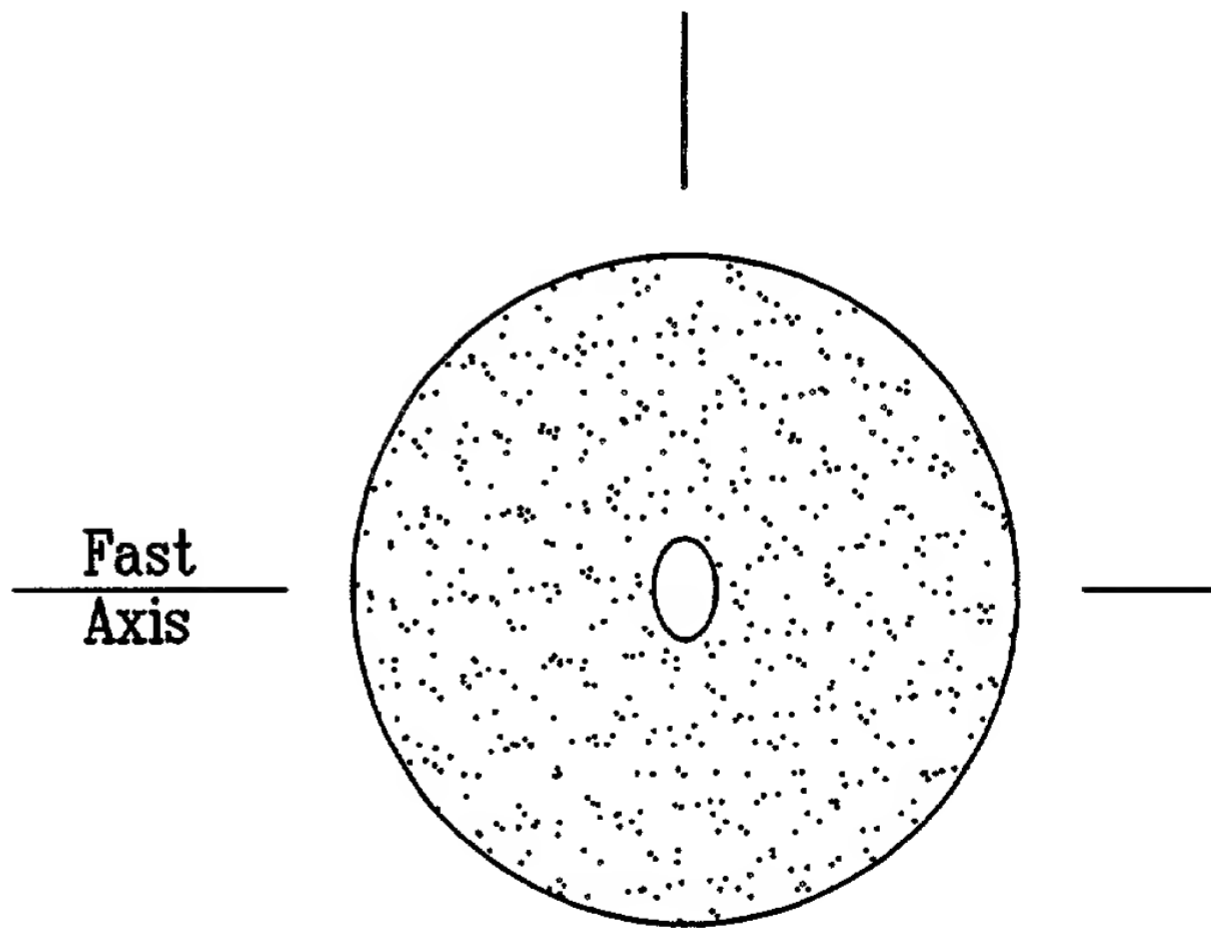
Bow-tie
FIG. 8A
Prior Art



Panda
FIG. 8B
Prior Art

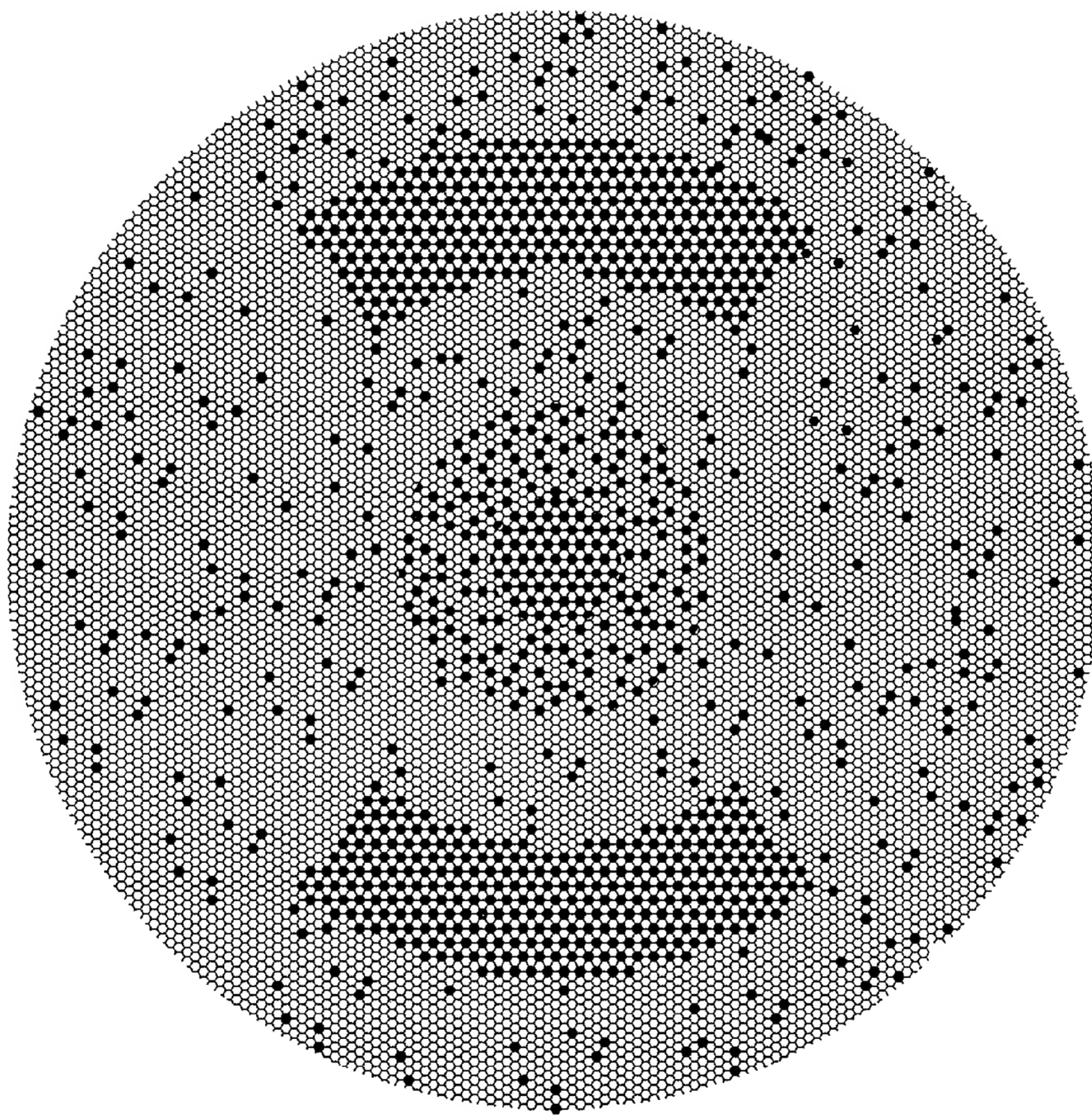


Oval-Inner Clad
FIG. 8C
Prior Art

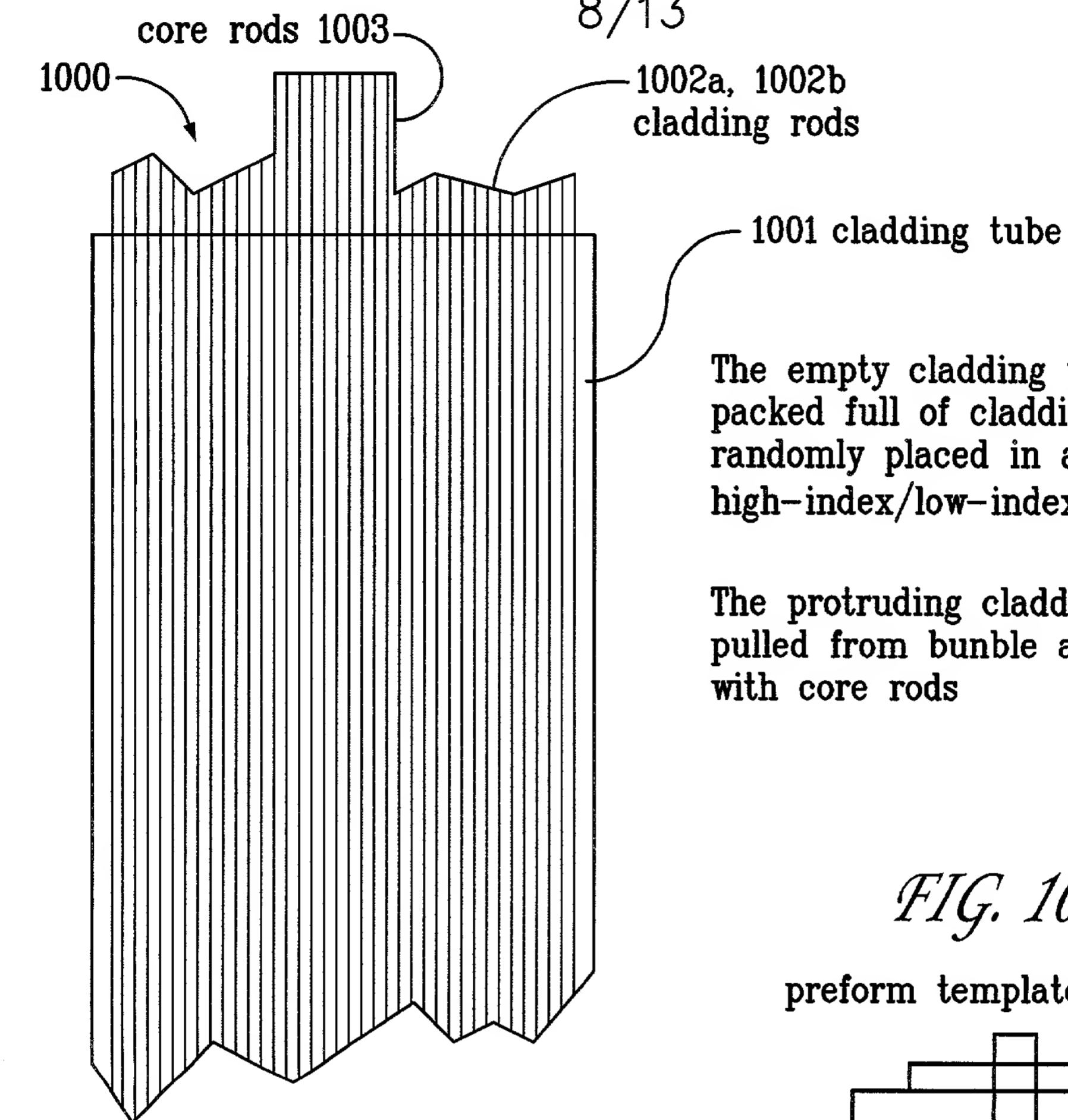


Oval Core
FIG. 8D
Prior Art

FIG. 9



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The empty cladding tube is packed full of cladding rods, randomly placed in appropriate high-index/low-index ratio

The protruding cladding rods are pulled from bundle and replaced with core rods

FIG. 10A

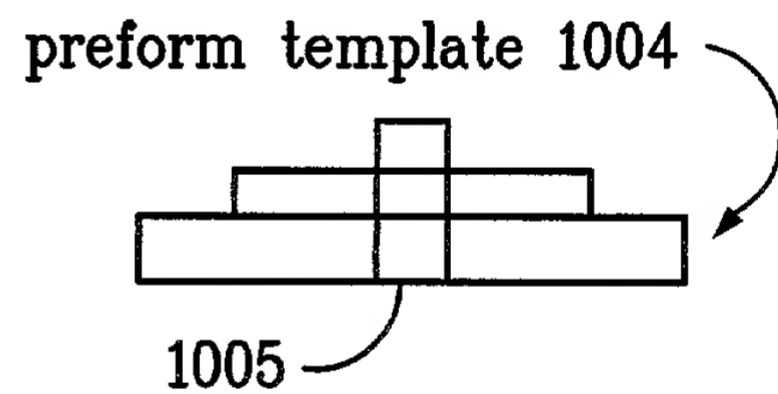


FIG. 10B

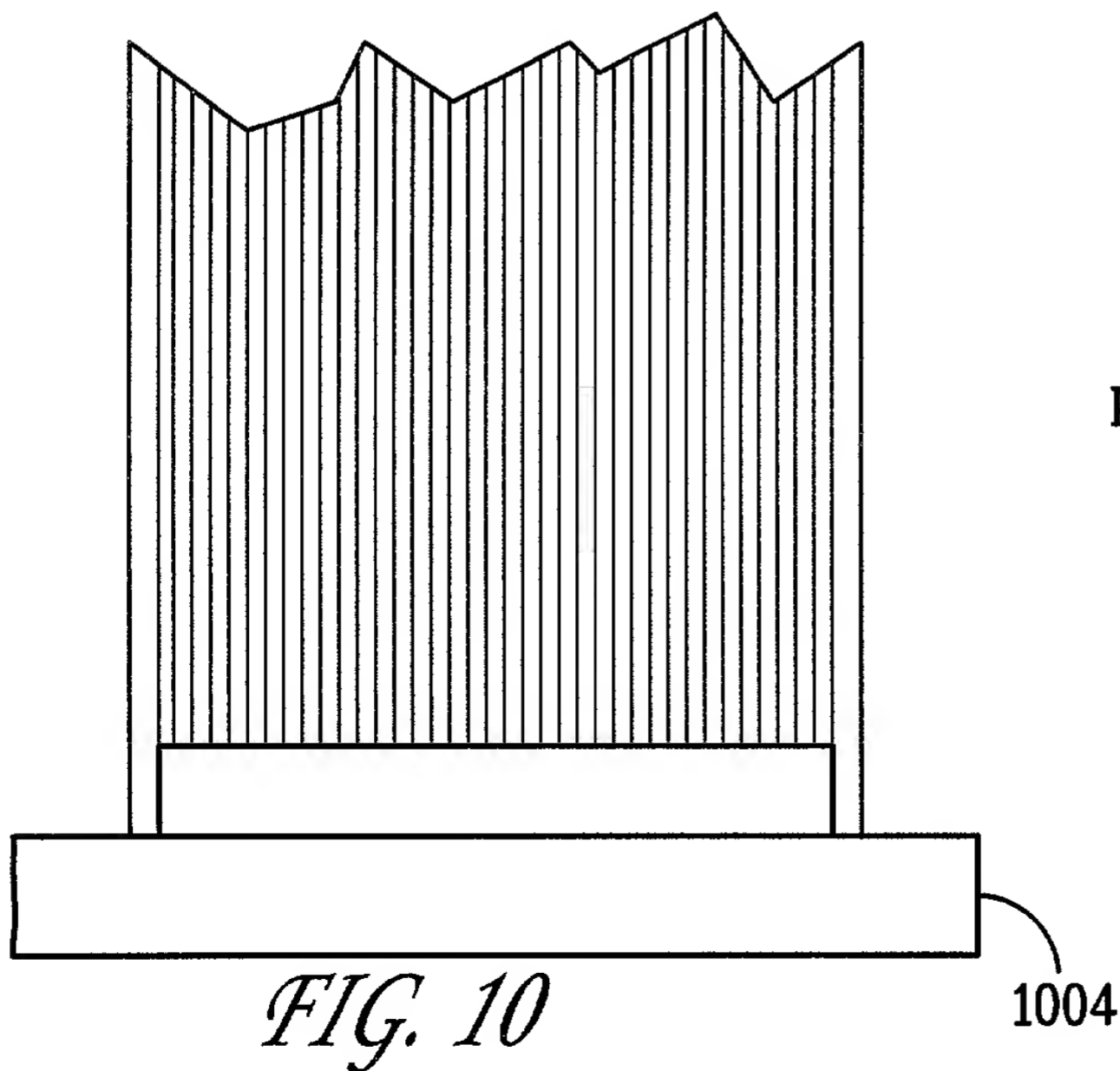
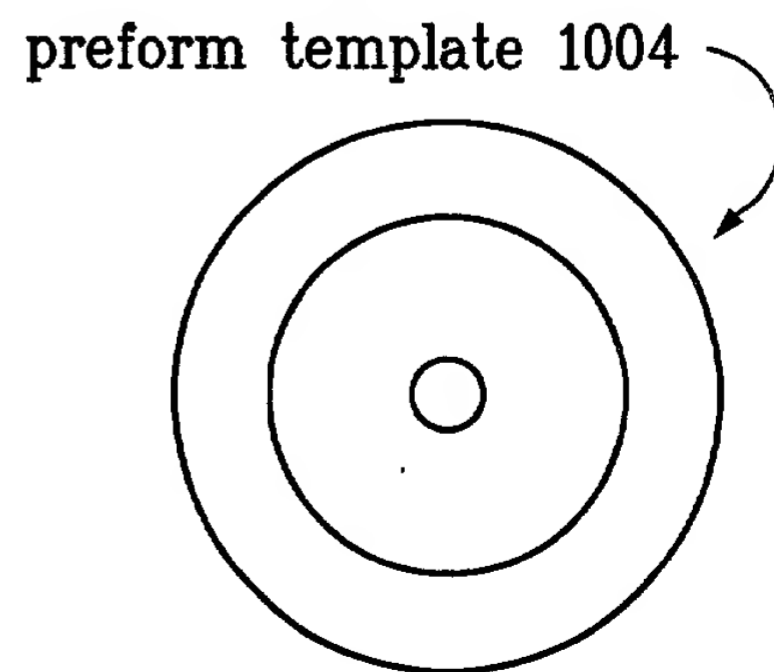
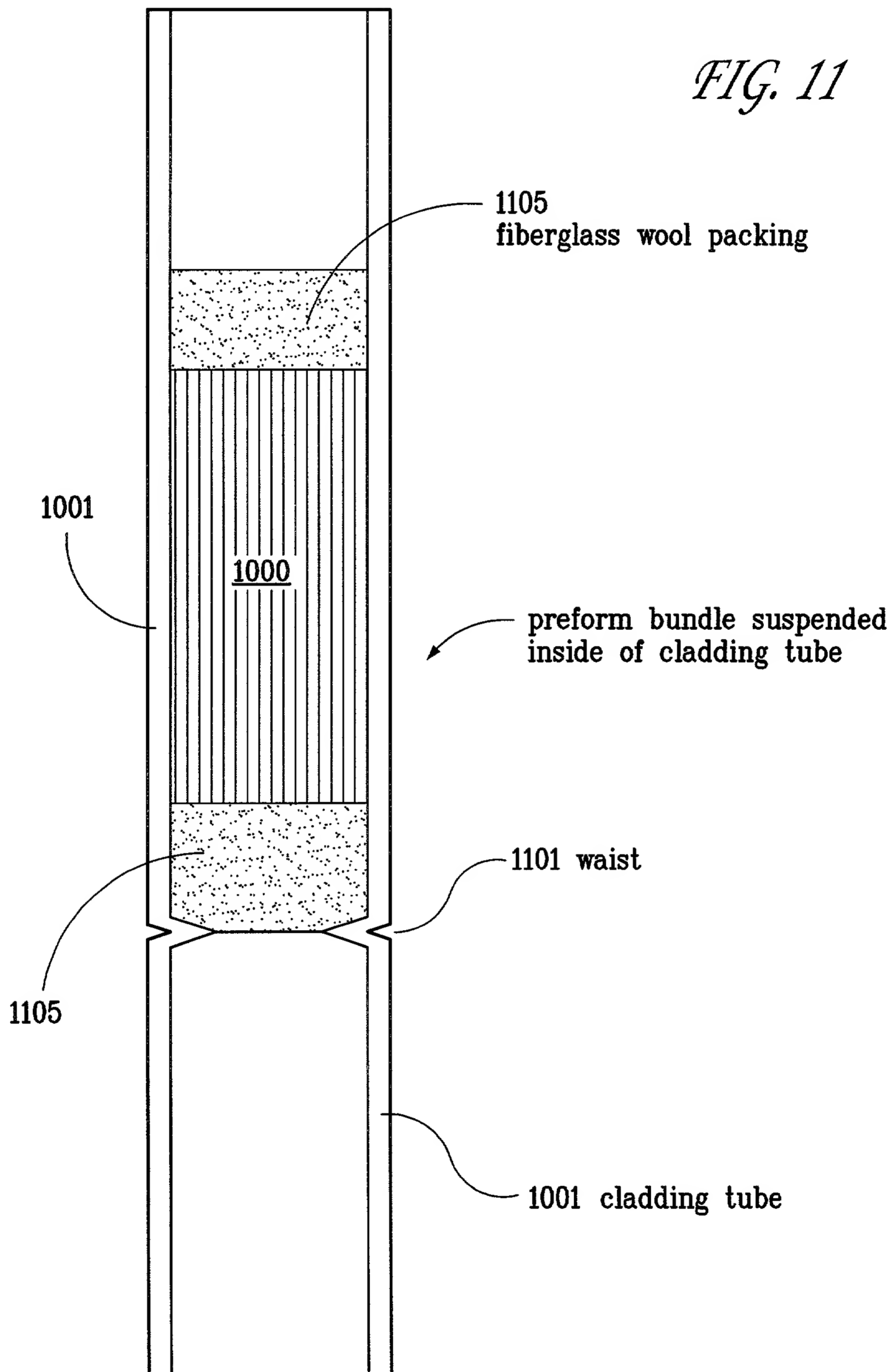


FIG. 11

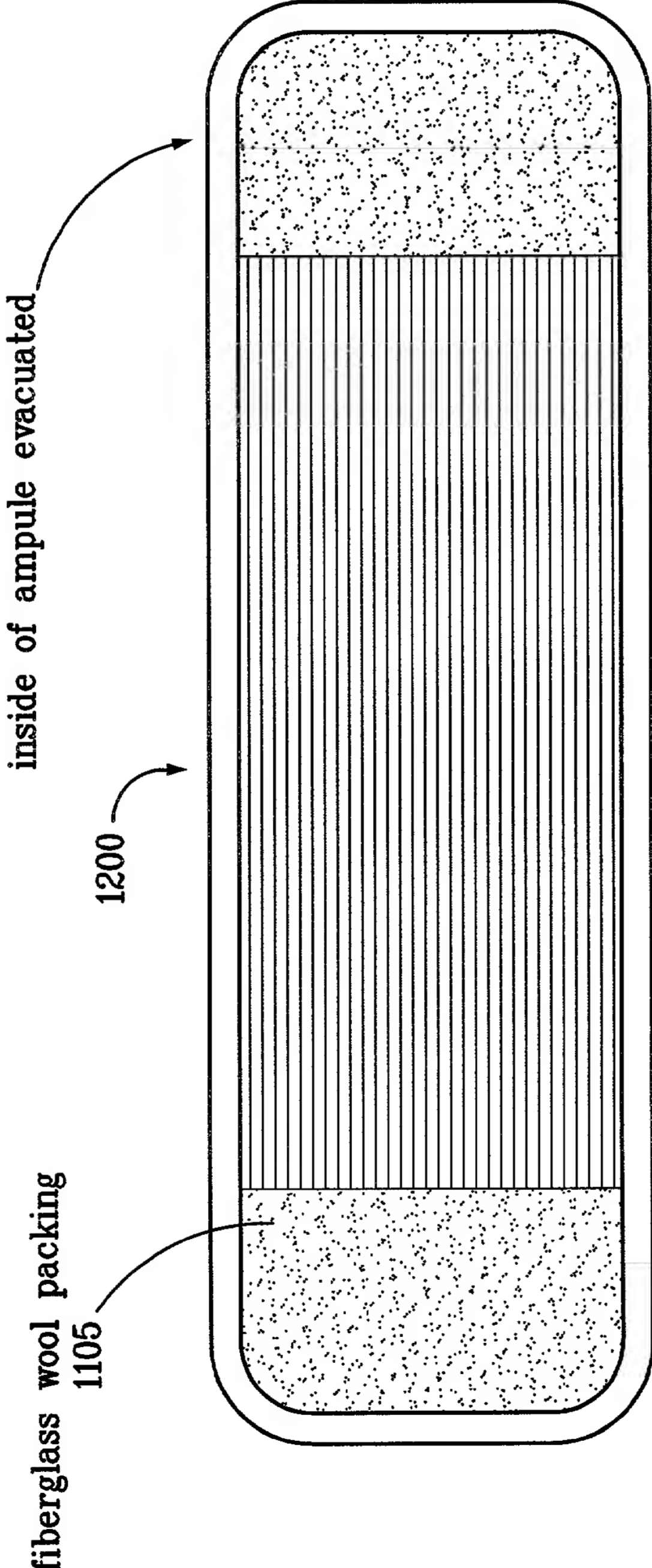
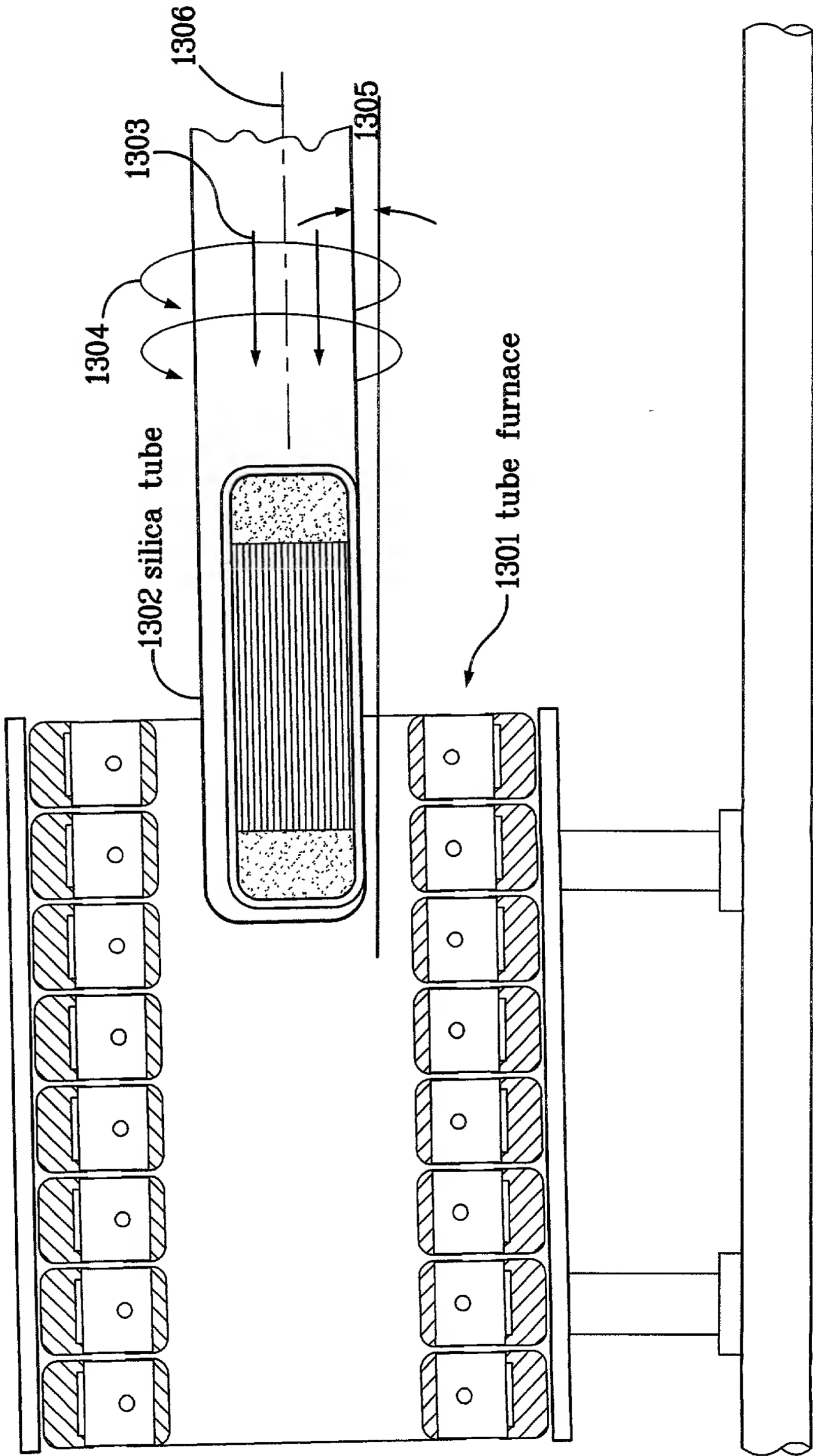


FIG. 12

FIG. 13



12/13

1401

vapor stream from conventional
MCVD gas delivery system

FIG. 14

collection tube 1402

tube furnace
1403

1404

coolant bath

1405

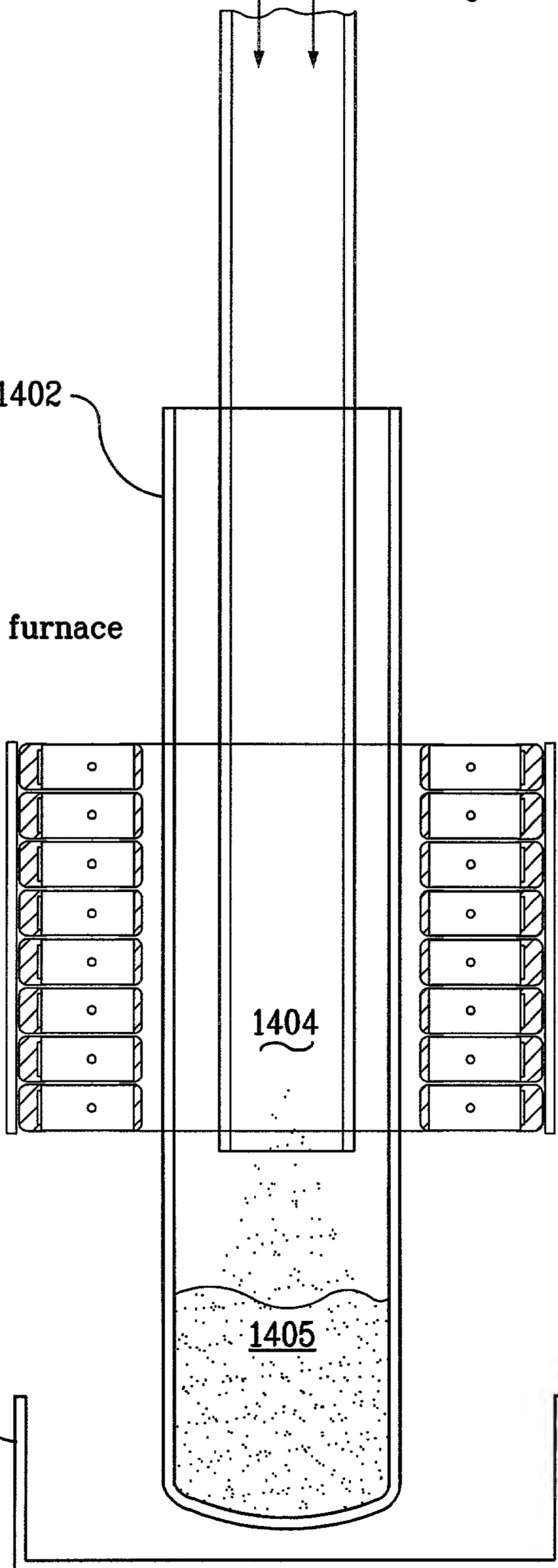


FIG. 15

